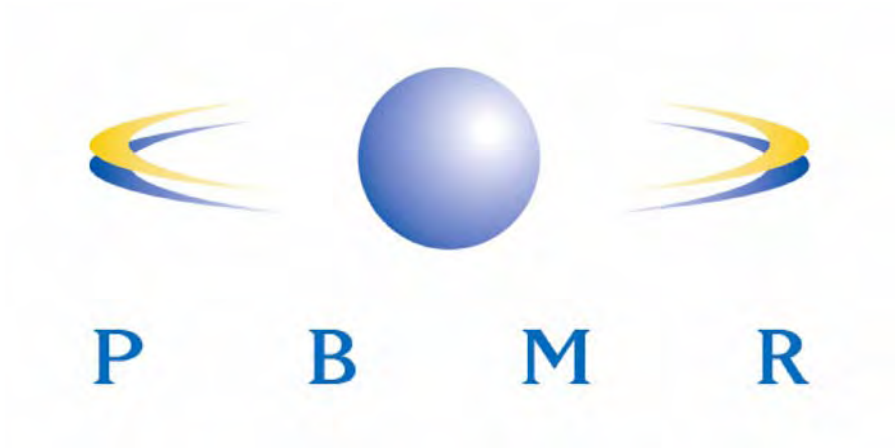

Safety and Design Familiarization

February 28 – March 2, 2006

Pre-Application Objectives

- Prepare for completing a Design Certification (DC) application for commercial PBMRs as soon as possible to support U.S. utility long range planning evaluations
- Establish a clear path forward for PBMR / HTGR licensing in the U.S.
- Clarify issues identified in Exelon's pre-application work still relevant to submitting a PBMR DC application
- Identify any new issues that require pre-application work or inclusion in the DC application
- Identify any further development and testing required for PBMR certification in the U.S.

Pre-Application Topics

- Selection of Licensing Basis Events
- Safety classification of Structures, Systems and Components (SSCs) and Defense-in-Depth
- Fuel design and qualification
- Applicable codes and standards & materials selection
- Computer code Verification & Validation (V&V)
- Single vs. multi-module certification
- Physical Security Considerations in Design

Pre-Application Phase 2 Objectives

- **Conduct initial familiarization sessions for assigned NRC reviewers on the PBMR design, operations and safety approach.**
  - Session 1 - Plant design principles, layout and systems
  - Session 2 - Safety design and analysis, and plant operations and events
- **Obtain feedback from the NRC through the review of individual white papers addressing each of the focus topics identified during the Phase 1 Planning.**
- **Each white paper will comprise a substantive discussion on a specific topic, including technical, regulatory and policy issues.**
- **Submit a comprehensive version of a format and content guide tailored to the submission of a non-LWR DC application.**

Familiarization Session 1

Tuesday, February 28, 2006

9:00 a.m.	**Introductory Remarks**
9:15 a.m.	**PBMR Program Overview**
10:15 a.m.	**Break**
10:30 a.m.	**PBMR Design Principles**
12:15 p.m.	**Lunch**
1:15 p.m.	**Reactor Unit and Main Support Systems**
2:45 p.m.	**Break**
3:00 p.m.	**Reactor Unit and Main Support Systems (Cont'd)**
4:00 p.m.	**Public Comments**
4:15 p.m.	**Open Discussion**

Familiarization Session 1

Wednesday, March 1, 2006

9:00 a.m.	**Power Conversion Unit**
11:00 a.m.	**Break**
11:15 a.m.	**Auxiliary Systems Overview**
12:15 p.m.	**Lunch**
1:15 p.m.	**Auxiliary Systems Overview (Cont'd)**
2:30 p.m.	**Break**
2:45 p.m.	**Civil Structures and Equipment Arrangements**
3:45 p.m.	**Public Comments**
4:00 p.m.	**Proprietary Discussions , if necessary (closed to public)**
4:30 p.m.	**Open Discussion**

Familiarization Session 1

Thursday, March 2, 2006

9:00 a.m.	**Automation Systems**
10:45 a.m.	**Break**
11:00 a.m.	**Electrical Systems**
11:30 a.m.	**Public Comments**
11:45 a.m.	**Wrap-up Discussions**